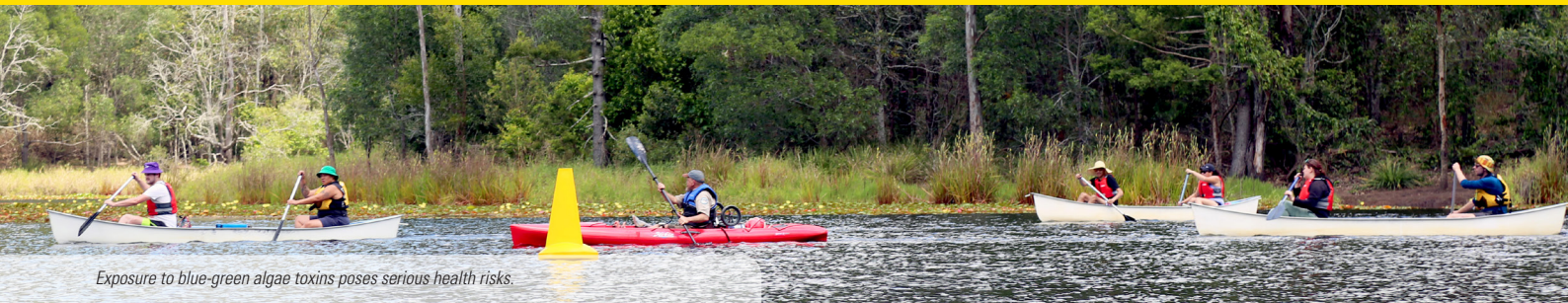


Frequently asked questions: Blue-green algae and recreation



Exposure to blue-green algae toxins poses serious health risks.

Blue-green algal blooms: risks to lake users

Blue-green algae (cyanobacteria) pose health risks to people who swim, boat and fish at Seqwater storage lakes.

What is blue-green algae?

Blue-green algae (cyanobacteria) are naturally occurring bacteria that live in lakes and waterways. The presence of sufficient nutrients, warm temperatures and high levels of sunlight, together with calm waters, provide optimal growing conditions for blue-green algae. Excessive growth, called an algal bloom, generally occurs during summer and autumn, however blooms can happen at any time. Cool, cloudy and windy weather can help reduce blue-green algae levels.

Why are blue-green algae a problem?

Blue-green algae impacts water quality, and some species produce toxins that can be harmful to people and animals.

Algae and associated toxins may be present in lakes without being visible to the naked eye. Sometimes algae can be mixed in the water column or produce a smelly, thick scum on the water surface.

Not all blooms are toxic, but in the interest of public safety, we treat them as toxic until the water has been tested.

Algal blooms are expected to occur every year with varying severity and can persist for weeks, months or even an entire season if the right conditions exist.

How can I be exposed to blue-green algae toxins?

Potential health hazards are related to the way people are exposed to the toxins, including:

- swallowing water when swimming, skiing or tubing
- breathing in water droplets and spray during jet-skiing or power boating
- water coming into contact with the skin, including sensitive areas such as the ears, eyes, mouth and nose
- eating fish and other food caught in algae-affected lakes.

What are the health impacts of exposure to blue-green algae toxins?

Exposure to blue-green algae toxins can cause serious health effects:

- Swallowing water containing algae toxins may cause gastroenteritis symptoms such as vomiting, diarrhoea, fever and headache. The toxins produced by blue-green algae may also affect the liver, kidneys and brain.
- Inhaling affected water may cause respiratory problems and flu-like symptoms.
- Skin contact with water (including sensitive areas) may cause ear and eye irritation, skin rash, flu-like symptoms and fever.
- Eating fish and other food caught in algae-affected waters may present a health risk. There have been reports of people becoming sick after eating fish caught in algae-affected lakes.

People who are concerned about their health following contact with affected water should seek medical advice.

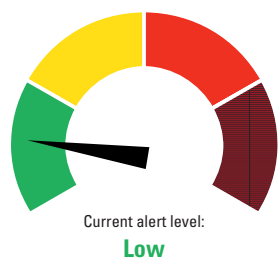
Frequently asked questions: Blue-green algae and recreation

Are children more vulnerable than adults to blue-green algae toxins?

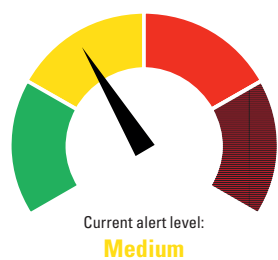
Children are more susceptible to the effects of blue-green algae toxins. They have a smaller body weight and tend to swallow larger volumes of water while swimming or playing in lakes. Children are also less likely to restrict or modify their activities to protect themselves in the water.

When will water-based activities be restricted at Seqwater lakes?

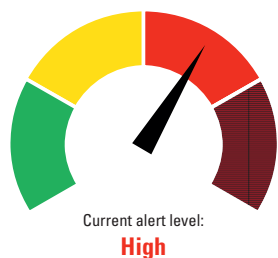
To protect lake users from exposure to blue-green algae toxins, water-based recreational activities are restricted when blue-green algae levels trigger a potential health risk.



LOW LEVEL: indicates the blue-green algae toxic concentration is low. The lake will remain open for all permitted water-based activities as algae levels are unlikely to cause adverse health effects.

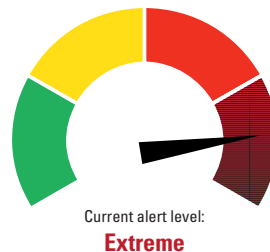


MEDIUM LEVEL: indicates an increase in blue-green algae. The lake will remain open for all permitted water-based activities. Seqwater will investigate further and increase the frequency of water quality testing.



HIGH LEVEL: indicates blue-green algae toxins are present and pose serious harm to your health if you swallow, inhale or come into contact with affected water (including sensitive areas such as ears, eyes, mouth and nose).

The lake will close to primary contact (in-water) activities, such as swimming, skiing and tubing, but remain open for secondary contact (on-water) recreation such as boating, paddling and fishing.



EXTREME LEVEL: indicates the level of blue-green algae toxins poses serious health risks if exposed.

The lake will remain closed to primary contact (in-water) recreation. Seqwater will issue an advisory notice that secondary

contact (on-water) activities such as boating, fishing and paddling on the affected lake is not advised.

At times, we may still close lakes to all water-based recreation for other reasons such as severe weather.

When will lakes be re-opened for water-based activities?

Seqwater conducts regular water quality tests when algae levels are high, and will re-open lakes for water-based activities as soon as the results of three consecutive water quality tests fall within acceptable limits.

It may be necessary to limit water-based activities for weeks or sometimes months until blue-green algae levels return to acceptable limits.



Frequently asked questions: Blue-green algae and recreation

What is primary and secondary contact recreation?

Water-based recreation activities are classified as primary contact (in-water) or secondary contact (on-water):

PRIMARY CONTACT (IN-WATER) RECREATION:

involves water contact activities where the whole body, face and/or trunk is frequently immersed; or where the face is frequently being sprayed; or where it is likely that some water will be swallowed, inhaled, or come into contact with ears, eyes, mouth and nose or cuts in the skin (e.g. swimming, water skiing, jet skiing and tubing).



SECONDARY CONTACT (ON-WATER) RECREATION:

involves incidental water contact activities in which only the limbs are regularly wet, and greater contact with water (including swallowing) is unusual (e.g. boating, fishing, rowing, kayaking or canoeing with no intent to capsize or submerge). There may be the occasional and inadvertent immersion through accidents. (e.g. slipping into the water, accidentally capsizing from a rowing or sailing craft).



It's important to note that not all lakes allow primary and/or secondary contact recreation activities.

Can I eat fish caught in algae-affected lakes?

Eating fish, shellfish and crustaceans caught in algae-infested waters may present a health risk. Dangerous algae toxins can remain in the water and accumulate in the internal organs of fish and crustaceans, even after the bloom has dissipated and is no longer visible.

Consuming more than three servings of fish in a week is not recommended. There are further restrictions for pregnant women and children. Visit foodstandards.gov.au for further guidance.



Can my drinking water supply be affected by blue-green algae?

Seqwater's treatment plants remove harmful algae toxins from the water before it reaches your tap.

Untreated algae-affected water is not suitable for preparing food, bathing, showering or brushing teeth. Boiling algae-affected water will not remove algae toxins or make the water safe to drink.

How can lake users keep safe during blue-green algal blooms?

Your safety at our lakes is our priority and your responsibility.

Follow the advice of Seqwater employees and signage in affected areas. To reduce the risk of exposure, avoid contact with the water until blue-green algae levels fall within acceptable limits.

When we close a lake to primary contact (in-water) activities, we will use these symbols:



When we issue an advisory notice that secondary contact (on-water) activities are not advised, we will use these symbols:



All boating
not advised

Paddling
not advised

Sailing
not advised

Fishing
not advised

Frequently asked questions: Blue-green algae and recreation

Why have you changed the way you manage recreational access during blue-green algal blooms?

In response to community feedback, Seqwater completed a detailed review of its recreation management response to blue-green algal blooms.

From 1 December 2016, Seqwater will introduce an updated *Blue-green Algae Recreation Management Procedure* – a summary document with information about:

- blue-green algae levels in Seqwater lakes
- potential health hazards from exposure to algae toxins
- managing lake access for water-based recreation when blue-green algae levels are high.

How will I know when water-based activities are restricted?

Always check our recreation and safety notices before you leave home to ensure you are aware of the latest lake conditions and current closure notices.

Latest blue-green algae levels for each of our lakes are published on our website at seqwater.com.au/recreation.

Closure and advisory notices will also be issued online through our social media channels, as well as via our mobile app and posted on signage at the lakes.

How can I find out more?

Download our *Blue-green Algae Recreation Management Procedure* summary for more information about managing recreational access to Seqwater lakes during blue-green algal blooms.

For the latest updates, visit our website, follow us on social media or download the Seqwater public safety app.



seqwater.com.au



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Download Seqwater's public safety app



Playing it safe at Logans Inlet, Wivenhoe Dam.